IN THE UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF TENNESSEE

SNMP RESEARCH, INC. and SNMP RESEARCH INTERNATIONAL, INC.,	§ § §	Case No. 3:20-cv-00451
Plaintiffs,	§ § §	
v.	§ §	**Jury Demand**
BROADCOM INC.; BROCADE COMMUNICATIONS SYSTEMS LLC; AND EXTREME NETWORKS, INC.	§ § § § § §	
Defendants.	§ § §	

DECLARATION OF STEVE WALDBUSSER IN SUPPORT OF PLAINTIFF.'S EVIDENTIARY SUPPLEMENT PURSUANT TO DOCKET 147

I, **Steve Waldbusser**, declare as follows:

1.   I am over the age of eighteen (18) years and am of sound mind.

2.   I am a citizen and resident of Los Altos, California.

3.   I have personal knowledge of all of the matters to which I attest herein and, if called as a witness, could testify competently to such facts under oath.

4.   Counsel for Plaintiffs retained my services on behalf of SNMP Research International, Inc. and SNMP Research, Inc. (collectively "Plaintiffs") in order to provide services in the above captioned case.

5.   I have extensive experience with the "C" programming language through over 35 years of programming experience. I have served as an expert in multiple cases where I performed source code reviews of large programs for purposes of determining infringement.   My curriculum vitae is attached as Exhibit A.

6. As a component of Plaintiffs' engagement, I searched source code for Brocade products provided by Hueston, Hennigan (counsel for defendants Brocade Communication Systems LLC ("Brocade") and Broadcom Inc. (collectively Defendants)) in Los Angeles.

7. There were 200 versions of Brocade's fabric operating system software (in source code form) produced at the Hueston, Hennigan offices.

8. During the search performed at Hueston, Hennigan's office I identified substantial amounts of Plaintiffs' source code in every version of fabric operating system source code produced.

9. I also determined that most of Plaintiffs' source code present in the versions of the fabric operating system source code is registered with the United States Copyright Office.

10. Brocade also produced the binary images built from the fabric operating system source code. A binary image contains computer executable instructions. It is my understanding that these binary images run on Brocade products.

11. I examined the binary images of the fabric operating system for the presence of Plaintiffs' software.

12. Based on my examination of the binary images and the source code, I determined that at least the versions of the fabric operating systems in binary form specified in Exhibit A contain substantial amounts of Plaintiffs' software.

13. As my investigation is ongoing, further investigation may determine that other versions of Brocade's fabric operating system contain Plaintiffs' software.

14.   I also examined source code for defendant Extreme products produced at its counsel's office in San Francisco.

15.   I determined that the source code for the Extreme products contains substantial amounts of Plaintiffs' source code that has been registered with the United States Copyright office.

Executed this 22nd day of July, 2022, at Los Altos, California.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

_____
Steve Waldbusser

EXHIBIT A

Curriculum Vitae

Curriculum Vitae,
Qualifications, Testimony

Steve Waldbusser

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Qualifications

Summary

Mr. Waldbusser was a pioneer in the creation of the Internet, creating important standards, software, and systems that are building blocks of today's Internet. As the Internet first came to life, one of Mr. Waldbusser's challenges was to help figure out how to connect Carnegie Mellon University's large research network to the emerging Internet. This experience led to him becoming an author and co-author of many of the core IETF networking standards (SNMPv2/v3, RMON1/2, Host MIB, and others - a total of hundreds of Internet Drafts and more than 40 RFC standards). Mr. Waldbusser was also the original creator of the popular Net-SNMP Open Source software.

Mr. Waldbusser has become a thought leader in the networking field. He has contributed numerous articles to journals and magazines, has served on many advisory boards of networking hardware and software companies, has been a frequent speaker at industry events and an invited lecturer for Carnegie Mellon University graduate courses.

Mr. Waldbusser has been recognized for his contributions to the Internet. In 1996, Network World magazine named him as one of networking's "Power Players". Later, in 2007, Network World named Mr. Waldbusser as one of the twenty "Top Network Inventors of All Time".

Mr. Waldbusser continues to innovate and was recently granted three patents on his technologies for managing next generation switched and OpenFlow networks.

Mr. Waldbusser has been retained as a testifying expert witness in a number of patent, copyright, and trade secret disputes and has testified in U.S. District Court in both jury and bench trials.

Education and Experience

Mr. Waldbusser attended Carnegie Mellon University as an undergraduate student in the Computer Engineering program from 1983 until 1987 when he became a full-time employee of the University and attended classes part time.

Mr. Waldbusser continues his professional education with technical training at professional conferences and by attending lectures at Stanford University.

Mr. Waldbusser has 32 years' experience in the computer industry. Over the years he has developed expertise in the following technologies:

- Networking Protocols at all layers including Web, Email, and Client-Server protocols
- Network Management protocols and MIBs
- Networking equipment such as routers, switches, firewalls, and Wifi access points
- Linux, Unix, Windows, Macintosh, and embedded clients and servers
- Open Source development
- Internet Engineering Task Force (IETF) policies and practices
- Source code written in languages such as C, C++, Java, JavaScript, and Python
- Source Code control systems such as Git, ClearCase, CVS, and RCS
- Software product compilation and build practices

Mr. Waldbusser's first post-college position was at Carnegie Mellon University as the Network Architect and Manager of Network Development. He managed a software development group developing networking and network management software to support CMU's population of 7000 users and was the Chief Architect of CMU's leading-edge multi-protocol network. In that position he architected a high-speed backbone architecture and designed and managed CMU's migration to ATM, Fast Ethernet and wireless technologies.

While at CMU, Mr. Waldbusser took a leading role in the IETF, authoring, or co-authoring many standards such as SNMP, SNMPv2, RMON and RMON2. He was the principal developer of the popular CMU-SNMP project which is used as the code base for many networking products (now known as NET-SNMP). He was a regular lecturer on network management for networking graduate courses at CMU's Information Networking Institute.

During his years at CMU, Mr. Waldbusser consulted with a number of industry leaders such as Hewlett Packard, Cisco, Bay Networks and Novell. He assisted these companies in architecting and implementing networking products and standards. He frequently lectured on networking topics at industry trade shows and symposiums.

In 1995, Mr. Waldbusser joined Lucent/International Network Services where he was the Chief Strategist for the VitalSoft division. While there he continued his leadership in developing IETF standards.

In 2000, Mr. Waldbusser became a full-time consultant and has assisted many high-tech companies while continuing as an author and contributor of IETF standards such as SNMPv3, NetConf, and others. More recently, he was granted U.S. Patents for technology based on his independent research: "Monitoring Gateway Systems and Methods for Openflow Type Networks" (Patent Nos. 9,544,182 and 10,419,319; other associated patents are pending).

Mr. Waldbusser has on many occasions been engaged as a testifying expert witness in patent and copyright disputes. His activities have included:

> • Using his experience with historical commercial and open source products to find potential prior art

> • Analyzing source code, object code, documentation and other evidence related to prior art or accused products in order to form opinions as to validity or infringement

> • Writing claim charts that demonstrate his findings

> • Analyzing source code and object code for the presence of copied or derivative work

> • Writing expert reports, rebuttal reports, claim charts, declarations, and affidavits

> • Working with client's damages expert, including performing technical analysis sufficient to provide a basis for a damages opinion

> • Working with graphics consultants to create demonstratives for direct examination

> • Giving trial and deposition testimony (trial testimony for both jury and bench trials)

> • Assisting counsel in deposition of opposing experts and fact witnesses

> • Assisting counsel in the preparation of various briefs and motions

> • Performing forensic software analysis in secure software review environments

> • Advising on the setup for a secure software review environment for opposing experts

Peer Reviewed Industry Standards

- *"Remote Network Monitoring Management Information Base Version 2"*, RFC 4502, Steven Waldbusser, May 2006

- *"Policy Based Management MIB"*, RFC 4011, S. Waldbusser, J. Saperia, T. Hongal, March 2005

- *"Application Performance Measurement MIB"*, RFC 3729, Steven Waldbusser, March 2004

- *"Introduction to the Remote Monitoring (RMON) Family of MIB Modules"*, RFC 3577, S. Waldbusser, R. Cole, C. Kalbfleisch, D. Romascanu, August 2003

- "*Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)"*, RFC's 3416-3418, Presuhn, R., Case, J., McCloghrie, K., Rose, M., and Waldbusser, S., December 2002

- *"Remote Network Monitoring Management Information Base for High Capacity Networks"*, RFC 3273, Steven Waldbusser, July 2002

- *"Terminology for Policy-Based Management"*, RFC 3198, A. Westerinen, J. Schnizlein, J. Strassner, M. Scherling, B. Quinn, S. Herzog, A. Huynh, M. Carlson, J. Perry, S. Waldbusser, November 2001

- *"Remote Network Monitoring MIB - Full Standard"*, RFC 2819, Steven Waldbusser, May 2000

- *"Host Resources MIB – Draft Standard"*, RFC 2790, S. Waldbusser, P. Grillo, March, 2000

- *"Remote Network Monitoring MIB Extensions for Switched Networks"*, RFC 2613, R. Waterman, B. Lahaye, D. Romascanu, S. Waldbusser, June 1999

- *"Structure of Management Information Version 2 (SMIv2) – Full Standard"*, RFC's 2578-2580, K. McCloghrie, D. Perkins, J. Schoenwaelder, J. Case, M. Rose, S. Waldbusser, April 1999

- *"Remote Network Monitoring MIB 2"*, RFC 2021, Steven Waldbusser, January 1997

- *"Version 2 of the Simple Network Management Protocol (SNMPv2) – Draft Standard"*, RFC's 1901-1908, Jeffrey D. Case, Keith McCloghrie, Marshall T. Rose, and Steven Waldbusser, Jan 1996

- *"Remote Network Monitoring MIB - Draft Standard"*, RFC 1757, S. Waldbusser, February 1995

- *"AppleTalk MIB II"*, RFC 1742, Steven Waldbusser, Karen Frisa, January 1995

- *"Modem MIB"*, RFC 1696, J. Barnes, L. Brown, R. Roysten, S. Waldbusser, August 1994

- *"Host Resources MIB"*, RFC 1514, Pete Grillo, Steven Waldbusser, September 1993

- *"Token Ring Extensions to the Remote Network Monitoring MIB"*, RFC 1513, Steven Waldbusser, September 1993

- *"Version 2 of the Simple Network Management Protocol (SNMPv2)"*, RFC's 1441-1452, Jeffrey D. Case, Keith McCloghrie, Marshall T. Rose, and Steven Waldbusser, April 1993

- *"Remote Network Monitoring MIB"*, RFC 1271, Steven Waldbusser, November 1991

- *"AppleTalk Management Information Base"*, RFC 1243, Steven Waldbusser, July 1991

Papers and Publications

- "Monitoring Gateway Systems and Methods for Openflow type Networks", Steven Waldbusser, Inventor; US Patent 10,419,319 (Filed January 9, 2017, Issued September 17, 2019)

- "Monitoring Gateway Systems and Methods for Openflow type Networks", Steven Waldbusser, Inventor; US Patent 9,544,182 (Filed February 19, 2014, Issued January 10, 2017)

- *"The SNMP Information Model"*, Sharon Chisholm, and Steven Waldbusser, IETF Internet Draft, (December, 2003)

- *"Application Performance Measurement Grows Up"*, Steven Waldbusser, Network Computing Magazine, (May, 2001)

- *"Distributed Management Framework"*, Andy Bierman, Maria Greene, Bob Stewart, and Steven Waldbusser, IETF Internet Draft, (August, 1998)

- *"Implementation Hints for the SNMPv2 Simplified Security Conventions"*, Steven Waldbusser, IETF Internet Draft, (November, 1994)

- *"Conventions for Simplified Usage of SNMPv2 Security"*, Steven Waldbusser, IETF Internet Draft, (November, 1994)

- *"Overview of SNMPv2 Simplified Security Conventions"*, Steven Waldbusser, IETF Internet Draft, (March, 1994)

- *"Deploying SNMPv2"*, Steven Waldbusser, The Simple Times, (February, 1994)

- *"The Trend Towards Hierarchical Network Management"*, Steven Waldbusser, The Simple Times, (December, 1993)

- *"Row creation with SNMPv1"*, Steven Waldbusser, IETF Internet Draft, (October, 1993)

- *"A Network Management Perspective on the age-old Token Ring vs. Ethernet Debate"*, Steven Waldbusser, The Simple Times, (September, 1993)

- *"Distributed Computing - Implementation and Management Strategies"*, Raman Khanna, Editor, Prentice Hall, (September, 1993)

- "*Why Plug and Play Networks are Hard to Manage*", Steven Waldbusser, The Simple Times, (July, 1993)

- *"A Look at the Host Resources MIB "*, Steven Waldbusser, The Simple Times, (May, 1993)

- *"An Introduction to the Simple Management Protocol"*, Jeffrey D. Case, Keith McCloghrie, Marshall T. Rose, and Steven Waldbusser, Proceedings of the Third International Symposium on Integrated Network Management (April, 1993)

- "*Hints on coexistence and transition from SNMP to SNMPv2*", Steven Waldbusser, The Simple Times, (March, 1993)

- *"Should user interface information be standardized?"*, Steven Waldbusser, The Simple Times, (January, 1993)

- *"How RMON stands to replace the traditional protocol analyzer"*, Steven Waldbusser, The Simple Times, (November, 1992)

- *"SMP - straight from the source. (Simple Management Protocol, upgrade of Simple Network Management Protocol)"*, Jeffrey D. Case, Keith McCloghrie, Marshall T. Rose, and Steven Waldbusser, Data Communications, (November, 1992)

- *"Applications stand to benefit from SMP"*, Steven Waldbusser, The Simple Times, (September, 1992)

- *"The Truth About SNMP Performance"*, Steven Waldbusser, The Simple Times, (July, 1992)

- *"Today's MIB Compilers -- Too Much of a Good thing?"*, Steven Waldbusser, The Simple Times, (May, 1992)

- *"RMON: Completing the Network Management Puzzle"*, Steven Waldbusser, Mohan Nair, Mark Hoerth, Data Communications, (May, 1992)

- *"Exposing the Myths about Autotopology"*, Steven Waldbusser, The Simple Times, (March, 1992)

Titles and Honors

- Working Group Editor, IETF AppleTalk MIB Working Group
- Working Group Editor, IETF RMON MIB Working Group
- Area Advisor, IETF RMON MIB Working Group
- Chair, IETF Host Resources MIB Working Group
- Working Group Editor, IETF Host Resources MIB Working Group
- Working Group Editor, IETF Token Ring Remote Monitoring Working Group
- Working Group Editor, IETF Modem MIB Working Group

- Working Group Editor, IETF Printer MIB Working Group
- Area Advisor, IETF Printer MIB Working Group
- Working Group Editor, IETF Configuration Management with SNMP Working Group
- Member, IETF Network Management Area Directorate
- Member, IETF MIB Review Board
- Director, OpenView Forum
- Member, OpenView Forum Program Committee
- Session Chair, IFIP Integrated Network Management Symposium, 1993
- Member, IAB/IESG Nominating Committee, 1994-1995
- Expert Panelist, Enterprise Management Summit Vendor Shoot-out, 1994

Expert Witness and Expert Consulting Engagements

- Synoptics v. Asante (Civil Action No. C-93-20982 RMW PVT ENE) - Engaged by Synoptics

- BMC Software v. NetIQ Corp. (American Arbitration Association Case No. 70 133 0068803) - Engaged by NetIQ Corp. Testified at deposition.

- WebXchange v. Fedex, Dell and Allstate (1:08-cv-00131) and a related re-examination - Engaged by Fedex, Dell and Allstate

- Avaya v. SNMP Research International, Inc. et al. (1:12-cv-00191-RGA) - Engaged by SNMP Research International. Testified at deposition.

- PACKET INTELLIGENCE LLC v. Cisco Systems Inc (2:14-cv-00252 and 2:14-cv-01122) - Engaged by Cisco Systems Inc

- Cisco Systems Inc v. Arista Networks, Inc (3:14cv5343 and 3:14cv5344 and the related ITC cases: 337-TA-944 and 337-TA-945) - Engaged by Arista Networks

- PACKET INTELLIGENCE LLC v. NetScout Systems et al (2:16-cv-00230) - Engaged by NetScout Systems. Testified at deposition, a jury trial and a bench trial.

- SNMP Research International, Inc. et al. v. Nortel Networks Inc, et al (Case No. 11-53454 (KG)) - Engaged by SNMP Research International. Testified at deposition.

- Synopsys, Inc. v. Ubiquiti Networks, Inc. et al., (Case No. 3:17-cv-00561-WHO (LB)) – Engaged by Ubiquiti Networks

- APPLIED INVENTION, LLC v. E.I. DUPONT DE NEMOURS & CO. and PIONEER HI-BRED INTERNATIONAL, INC., (American Arbitration Association Case No. 01-18-0000-8614) – Engaged by DuPont et. al.

- Ribbon Communications v. MetaSwitch Networks Corp. (2:18-CV-00057-RWS) – Engaged by MetaSwitch Networks

- Motorola Solutions, Inc. et. al. v. Hytera Communications Corporation Ltd. Et. al. (1:17-cv-01973) – Engaged by Hytera Communications

- Press Ganey Associates, Inc. v. Qualtrics, LLC (American Arbitration Association Case No. 01-18-0004-4674) – Engaged by Qualtrics

- Facebook Inc. v. Blackberry Ltd. (4:18-cv-05434-JSW) – Engaged by Facebook

- MedImpact Healthcare Systems et. al. v. IQVIA Inc. (3:19-cv-01865-GPC-DEB) – Engaged by IQVIA

- UMG Recordings, Inc., et al. v. Charter Communications, Inc. (1:21-cv-02020-RBJ-MEH) – Engaged by Charter Communications

Exhibit B

Fabric Operating System versions containing substantial amounts of SNMP Research software:

7.4.0_CBN2B	7.4.0_CBN3	7.4.0_CBN3A	7.4.0_CBN4
7.4.0_CBN5	7.4.0_CBN6	7.4.0_CBN7	7.4.0_CBN8
7.4.1D09	7.4.1D10	7.4.1D11	7.4.1E1
7.4.1E2	7.4.1E3	7.4.1E4	7.4.1E5
7.4.1E6	7.4.1E7	7.4.1E8	7.4.1E9
7.4.1F	7.4.2	7.4.2A	7.4.2A1
7.4.2A2	7.4.2A3	7.4.2A4	7.4.2A5
7.4.2A6	7.4.2A7	7.4.2B	7.4.2B1
7.4.2C	7.4.2C1	7.4.2D	7.4.2D1
7.4.2D2	7.4.2E	7.4.2E1	7.4.2F
7.4.2G	8.0.1B3	8.0.1B4	8.0.1B5
8.0.2A	8.0.2A1	8.0.2A2	8.0.2A3
8.0.2A4	8.0.2A5	8.0.2B	8.0.2B1
8.0.2B2	8.0.2B3	8.0.2B4	8.0.2C
8.0.2C1	8.0.2C2	8.0.2C3	8.0.2C4
8.0.2C5	8.0.2C6	8.0.2C7	8.0.2D
8.0.2D1	8.0.2D2	8.0.2E	8.0.2F
8.1.0_LNX	8.1.0_LNX1	8.1.0_LNX2	8.1.0_LNX3
8.1.0A	8.1.0B	8.1.0B1	8.1.0B2
8.1.0C	8.1.1	8.1.1A	8.1.1A1
8.1.1A2	8.1.1AA	8.1.2	8.1.2A
8.1.2A1	8.1.2A2	8.1.2A3	8.1.2A4
8.1.2A5	8.1.2A6	8.1.2A7	8.1.2A8
8.1.2A9	8.1.2B	8.1.2B1	8.1.2C
8.1.2D	8.1.2D1	8.1.2E	8.1.2F
8.1.2G	8.1.2H	8.1.2J	8.1.2J1
8.1.2J2	8.1.2K	8.1.2K1	8.2.0
8.2.0_CBN	8.2.0_CBN1	8.2.0_CBN2	8.2.0_CBN3
8.2.0_CBNA	8.2.0_GFT	8.2.0_GFT1	8.2.0_GFT1A
8.2.0A	8.2.0A1	8.2.0A3	8.2.0A4
8.2.0A5	8.2.0B	8.2.0B1	8.2.1
8.2.1A	8.2.1A1	8.2.1A2	8.2.1B
8.2.1C	8.2.1C1	8.2.1C2	8.2.1C3
8.2.1C4	8.2.1D	8.2.1D1	8.2.1E
8.2.2	8.2.2A	8.2.2A1	8.2.2A2
8.2.2B	8.2.2B1	8.2.2C	8.2.2C1
8.2.2C2	8.2.2C3	8.2.2C4	8.2.2C5
8.2.2D	8.2.2D1	8.2.2D2	8.2.2D3
9.0.0	9.0.0A	9.0.0B	9.0.0B1
9.0.0B2	9.0.0B3		